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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/596,228	06/05/2006	Nigel Buckley	CCALL.00003	3779

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EXAMINER
ADDIE, RAYMOND W

ART UNIT	PAPER NUMBER
3671	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/596,228	BUCKLEY ET AL.	
	Examiner	Art Unit	
	Raymond W. Addie	3671	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 June 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *2 and 5-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *18-20* is/are allowed.

6)☒ Claim(s) *2,5-7 and 9-16* is/are rejected.

7)☐ Claim(s) *8 and 17* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 2, 5-7, 9, 10, 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirsh US # 4,989,835 in view of Kang US # 2003/0210954 A1.

Hirsh discloses a vehicle barrier (1) comprising:

A barrier arm (2), movable between open and closed positions. See Figs. 1, 2.

Barrier supports (5) disposed at opposing ends of said barrier arm (2).

Said barrier supports being fixedly supported in a support base (6).

What Hirsh does not disclose is the use energy attenuating shear pins, attaching the barrier supports (5) to said support base (6).

However, Kang teaches it is known to mount vehicle-impact attenuating barrier systems (20) to slide rail assemblies (10), including slide plates (22) that will slide, when impacted by a vehicle, said movement being attenuated by the shearing of at least one shear pin (24, 39a, 40), that secures the slide plate (22) to at least one fixed surface (15) upon which the slide plate slides. The at least one shear pin (24, 39a) protruding through at least one slot in said slide plate. See Figs. 2, 4-7, 10; Cols. 4-5.

Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made to provide the vehicle barrier of Hirsh, with impact attenuating

features, as taught by Kang, in order to stop the impacting vehicle in a desired distance, as suggested by Hirsh. See Col. 2, ln. 35-Col. 3, ln. 64; emphasis on col. 3, lns. 55-65.

With respect to claims 5-7 Hirsh discloses essentially all that is claimed, to include modifying the foundation to address higher impact threats, but does not disclose the use of energy attenuating shear pins, attaching the barrier supports (5) to said support base (6). However, Kang teaches it is known to mount impact attenuating vehicle barriers to foundations, via a movable slide plate (22), having a pair of slots on opposing sides of said plate, see Fig. 6. Wherein said slide plate rests on said at least one fixed surface (15) which is formed by a pair of ground engaging beams (15). See col. 5, lns. 1-5. Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made to provide the vehicle barrier of Hirsh, with impact attenuating features, as taught by Kang, in order to stop the impacting vehicle in a desired distance, as reasonably suggested by Hirsh. See Col. 2, ln. 35-Col. 3, ln. 64; emphasis on col. 3, lns. 55-65.

With respect to claims 9, 10 Hirsch and Kang disclose barriers that allow structural deformation, such as strain tensioning of the cables (3) in Hirsch and the shear pins (40) of Kang to attenuate impact energy from the vehicle.
Further, Hirsch discloses the barrier can be pivotally raised and lowered into corresponding open and closed positions.

With respect to claim 14, Hirsh discloses essentially all that is claimed, to include modifying the foundation to address higher impact threats, but does not disclose the use of energy attenuating shear pins, attaching the barrier supports (5) to said support base (6). However, Kang teaches it is known to mount impact attenuating vehicle barriers to foundations, via a movable slide plate (22), mounted to at least one fixed surface (15), which further comprises an anchor plate (12) which is secured to the ground by affixing means (13). See Fig. 6.

2. Claims 5, 7, 9, 11, 13, 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nasatka # 4,893,119 in view of Moyer # 4,823,923.

Nasatka discloses a pair of vehicle barriers (14) pivotably moveable between open and closed positions and forming a ramp in the closed position.

Barrier supports (10, 12) attached to opposing ends of said barrier, and disposed in a roadway (R).

What Nasatka does not disclose is mounting the supports (10, 12) to an impact attenuating device.

However, Moyer teaches it is known to use energy absorbing devices (10) in a wide variety of applications, to attenuate impact energy of a vehicle, to minimize damage to said vehicle. Said energy absorbing device comprising: A barrier (12) connected to a slide plate (17), as at (33) and supported on a fixed surface (13) such that the slide plate (33) will slide on the surface (33), upon movement of the slide plate (33),

thereby shearing rivets (30, 36) at least said rivets (30) protruding through at least one slot (31) in said slide plate, and in said fixed surface (13). The slide plat having a plurality of slots (31, 38) on opposing sides of said slide plate, and said slide plate (17) rests on said at least one fixed surface. See Figs. 1, 2, 6; Col. 2.
Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made to mount the barrier of Nasatka, on an impact attenuating device, as taught by Moyer, in order to prevent destruction of the barrier assembly and the vehicle.

With respect to claim 9 Nasatka discloses essentially all that is claimed but does not suggest the use of frangible impact attenuators. However, Moyer teaches it is known to use energy absorbing devices (10) in a wide variety of applications, to attenuate impact energy of a vehicle, by permitting structural deformation of the shear pins, upon which a slide plate is mounted. Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made to mount the barrier of Nasatka, on an impact attenuating device, as taught by Moyer, in order to prevent destruction of the barrier assembly and the vehicle.

With respect to claim 13 Nasatka discloses essentially all that is claimed, to include 1st and 2nd barriers pivotally attached at their outer ends to supports (10, 12) for use in multi-lane roadways, such as toll booths; but does not suggest the barriers (14) could

be pivotally mounted together. However, Nasatka illustrates the barriers can be disposed end to end, with supports (10, 12) being adjacent. Further, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, that the barrier plates (14) could be pivotally mounted together, via a single central support (10), as opposed to adjacent supports, as illustrated, in order to permit the barriers to be moved in unison, thus forming a single elongated barrier.

With respect to claim 15 Nasatka discloses all that is claimed, as put forth above, with respect to claim 5, to include a vertical closed position, and an open position, where the ramp plate (14) forms a ramp, that is pivotally attached at either side thereof to be raised into said closed position.

3. Claims 5, 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Strauss # 1,692,142 in view of Kang US # 2003/0210954 A1.

Strauss discloses a vehicle barrier comprising:

A barrier (2) slidably movable between an open position and a closed position.

A pair of barrier supports (1) attached to respective ends of said barrier (2).

The barrier supports being mounted on a support base, of a roadway.

What Strauss does not disclose is the use energy attenuating shear pins, attaching the barrier supports (1) to said support base.

However, Kang teaches it is known to mount vehicle-impact attenuating barrier systems

(20) to slide rail assemblies (10), mounted to a roadway via anchor plate (12) and tension bolts (unnumbered), as well as including slide plates (22) that will slide, when impacted by a vehicle, said movement being attenuated by the shearing of at least one shear pin (24, 39a, 40), that secures the slide plate (22) to at least one fixed surface (15) upon which the slide plate slides. The at least one shear pin (24, 39a) protruding through at least one slot in said slide plate. See Figs. 2, 4-7, 10; Cols. 4-5. Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made to provide the vehicle barrier of Strauss, with impact attenuating features, as taught by Kang, in order to stop the impacting vehicle in a desired distance, as suggested by Strauss. See Col. 1, ln. 35- ln. 64; emphasis on col. 3, lns. 55-65.

Allowable Subject Matter

4. Claims 8, 17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 18-20 are allowed.

Response to Arguments

5. Applicant's arguments, see pages 5-10, filed 6/26/2008, with respect to the rejection(s) of claim(s) 2, 5-20 under 103 have been fully considered and are persuasive.

Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Hirsch and Strauss.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Raymond W. Addie whose telephone number is 571 272-6986. The examiner can normally be reached on 7am-3:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas B. Will can be reached on 571 272-6998. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Raymond W. Addie/
Primary Examiner, Art Unit 3671

9/25/2008